Psychiatric manifestations of withdrawal following domperidone used as a galactagogue in the U.S.: a case presentation

A. Rook[1], E. Majdinasab[1], S. Haque[1], A. Stark, MD[2], K. Krutsch, PharmD[1], T. Hale, PhD[3]

[1]Department of Obstetrics and Gynecology, [2]Department of Psychiatry, [3]Department of Pediatrics, Texas Tech University Health Sciences Center, Amarillo, Texas

Background

Inadequate milk production is a common concern among lactating mothers[1]. Common first-line options for increasing milk supply include evaluations of breastfeeding technique, infant latch, and maternal medical disorders[2]. After which, second-line options such as pharmaceutical galactagogues may be appropriate[3].

Domperidone is a dopamine-2 (D2) antagonist used off-label to increase breastmilk production[4]. Dosages commonly promoted for lactation are often far above those studied for international on-label indications and might pose additional risks, especially upon discontinuation of the drug.

A case is presented of a patient from the U.S. who used domperidone for lactation and experienced varying degrees of psychiatric withdrawal symptoms lasting months during dosage tapering and after cessation. There are other reported cases of psychosis following D2 antagonist use for lactation, but the issue is not well known. No treatments have been reported to provide relief other than time.

Case Presentation

- The patient began a prescription of domperidone at 90 mg/day five months after delivery under the supervision of an online physician outside of the U.S.
- Two weeks later she increased her dose to 120 mg/day due to continued perceived low milk supply. After three months, she began a taper which decreased her dosage by 10 mg each week.
- Within 2 weeks, at 100 mg/day, the patient felt anxious and stopped domperidone immediately with subsequent anxiety, depression, and suicidality, along with hot flashes, night sweats, hair thinning, and dry eyes. She had multiple ED visits and a 2-day admission to an inpatient psychiatric unit for suicidality.
- Her online provider advised returning to her maximum dose of domperidone and restarting the weaning process. The patient did not feel comfortable returning to 120 mg/day, instead reinstating 80 mg/day with a plan to continue reducing the daily dose by 10 mg/week.
- She tried this regimen for six weeks without relief of symptoms. She then elected to abruptly discontinue the domperidone without taper again.

Case Continued

- She rapidly experienced extreme anxiety, depression, and insomnia. She was unable to care for her child and felt distant from him.
- Several weeks into withdrawal, her primary anxiety, depression, and suicidality eventually resolved. Novel symptoms (Table 1) presented with a re-emergence of anxiety, still present eight months after the initial taper. She reports multiple additional suicide attempts throughout this period (Figure 1).

Table 1. Case presentation

Patient History	28-year-old G2P1A1 female with a history of subclinical hypothyroidism and infertility, but no personal or familial psychiatric history
Reason for initiation	Maternal perception of decreased milk supply after noting her baby was less satisfied after feeds
Referral and acquisition	Lactation consultant recommended an online physician and pharmacy
Aware of domperidone's risks?	No
Maximum dosage	120 mg/day
Domperidone treatment duration	17.5 weeks
Reason for cessation	Milk oversupply; interest in trying to conceive
Primary source of information	HCPs, then Facebook motherhood groups when unsatisfied with the lack of providers' knowledge/support after withdrawal symptoms presented
Healthcare provider dismissal of symptoms due to postpartum anxiety or depression?	Yes
Hesitation to divulge domperidone use to healthcare providers?	Moderate
Medications prescribed to address withdrawal	Hydroxyzine with worsening of anxiety, escitalopram (no improvement)
Discontinuation attempts	2
Original tapering schedule	Decrease total daily dosage by 10 mg at weekly intervals
Final tapering schedule	Discontinuation without taper
Persisting symptoms	Large volumes of dilute urine, lack of hunger and thirst signals, inability to sweat, dry eyes, dry mouth, tachycardia, hypotension, swallowing difficulty, temperature dysregulation, persistent insomnia, involuntary muscle movements

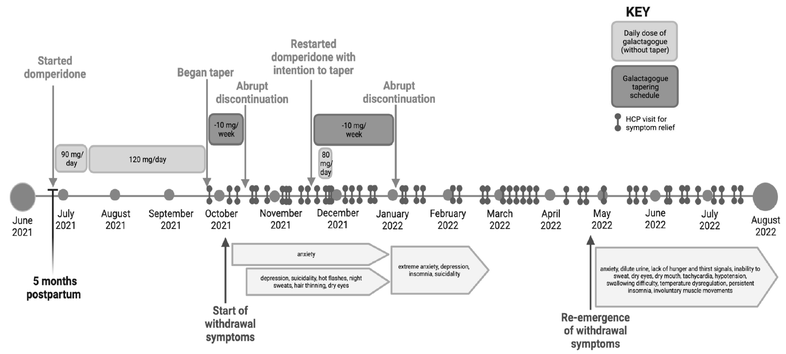

Figure 1. Timeline of tapers, presentation of withdrawal, and related visits to healthcare providers

Conclusions

Domperidone as a galactagogue may pose a significant psychiatric risk upon discontinuation. This presentation is commonly confused with, but clinically distinct from, postpartum depression. Lactating mothers who present with psychiatric symptoms should be explicitly probed about domperidone use, even in areas where domperidone is not authorized for use. Maternal hesitancy to disclose domperidone use may lead to suboptimal outcomes for the patient and delay management of withdrawal manifestations. The best course of treatment remains unknown, but a slow hyperbolic taper to gently discontinue domperidone may minimize withdrawal symptoms in these patients. Individuals exploring domperidone use should be informed of potential risks upon withdrawal, including psychiatric manifestations, requisite taper, and potential impacts of using unstudied high doses.

Contact

Kaytlin Krutsch, PharmD, MBA
Department of Obstetrics and Gynecology | InfantRisk Center
1406 Coulter St
Texas Tech University Health Sciences Center, Amarillo, TX 79106
Kaytlin.krutsch@ttuhsc.edu
Phone: 806-414-9260

References

1. Shere H, Weijer L, Dashnow H, Moreno LE, Foxworthy Scott S, Baker H. Chronic lactation insufficiency is a public health issue: Commentary on "We Need Patient-Centered Research in Breastfeeding Medicine" by Stuebe. Breastfeed Med 2021;16:349-350. Breastfeed Med. Dec 2021;16(12):933-934.
2. Gianni ML, Bettinelli ME, Manfra P, et al. Breastfeeding Difficulties and Risk for Early Breastfeeding Cessation. Nutrients. 2019 Sep 20;11(10):2266.
3. Zuppa AA, Sindico P, Orchi C, Carducci C, Cardiello V, Romagnoli C. Safety and efficacy of galactogogues: substances that induce, maintain and increase breast milk production. J Pharm Pharm Sci. 2010;13(2):162-174.
4. Seeman P. All roads to schizophrenia lead to dopamine supersensitivity and elevated dopamine D2(high) receptors. CNS Neurosci Ther. Apr 2011;17(2):118-132.